

ABSTRACT OF THE DISCLOSURE

A block decomposition based method is provided for compressing textures based on sharing color information between texture blocks. The texture map is divided into a plurality of texture blocks containing texels. During compression a first 5 color value is stored for a first block and a second color value is stored for a second block. A palette is created for each texture block using the color values stored for several neighboring texture blocks. Each texel in each of the texture blocks is indexed to one of the colors in the palette. Accordingly the method compresses the information in the texture map by storing for each texture block bits representing a 10 color value and bits to index each of the texels to a color in the palette, which allows sharing of color information between blocks. During decompression the palettes are regenerated and colors from the palette are assigned to the texels according to the stored index values. Accordingly, the decompression of the texture allows 15 regeneration of the compressed texture, which may be mapped to surfaces to improve the visual quality of three-dimensional graphics.